

original document

SEMICONDUCTOR DEVICE AND MANUFACTURE THEREOF

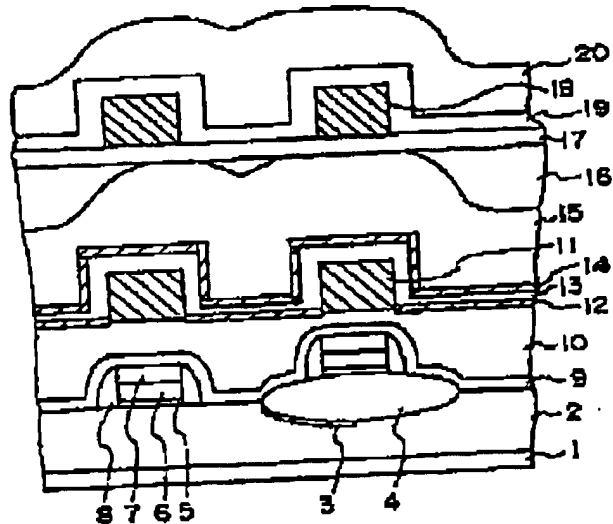
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Abstract of JP8051108

PURPOSE: To provide a method for manufacturing a semiconductor device in which water permeability of an interlayer film is improved to prevent the diffusion permeation of water content.

CONSTITUTION: After metal wirings 11 are formed, a substrate surface is exposed to a plasma by gas containing nitrogen element (N). An insulating film 12 having high water resistance containing nitrogen is formed on the surface of a BPSG film 10 by this plasma emitting. Thereafter, a P-type TEOS film 13 is formed on the substrate surface. Then, the substrate surface is again irradiated by the plasma by the gas containing nitrogen element. An insulating film 14 having high water resistance containing nitrogen is formed on the surface of the film 13 by this plasma emitting. Subsequently, an O₃TEOS film 15 and an SOG film 16 are sequentially formed on the film 14.



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